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ABSTRACT

As a result of a concern over the adequacy of teacher rating instruments, a project was begun to develop a pool of items describing teacher behavior. Most of the items were derived from the literature; some were written by the project. The item pool presently consists of 1137 items subsumed under 19 categories. Examples of categories are: personal and professional characteristics, motivation, discipline, lecturing, use of instructional materials, and discussions and small group work. In addition to this categorization, each item has been indexed by its key words and has been further classified as referring to behavior that is ratable, whose frequency is countable, or that can be treated in both ways. The item pool is stored on-line in an IBM 360/67 computer, and two programs are available for use. The first program allows the investigator to select the items he wishes to examine; it produces a listing of the items requested or a deck of cards with one item on each card. The second program generates rating forms which can be used in classroom observation. One form can include up to 25 items. It is suggested that future efforts focus on achieving a balance among the 19 item categories and developing the computer system. (The document includes a complete list of the 1137 items.) (RT)

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IN TEACHING

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Research and Development Memorandum No. 36

A TAXONOMY OF TEACHING BEHAVIORS: PROGRESS REPORT

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Acknowledgments

The research reported herein has a long history at the Stanford Center for Research and Development in Teaching, and reflects the participation of a number of people.

Recent contributors were: María Flores Hernández, Francis Sobol, and Katherine Baker. Pearl Paulsen, David Feldman, and Carl Rinne participated in the earlier phases of this project. The contributions of these members of the Center's Staff are gratefully acknowledged.

A TAXONOMY OF TEACHING BEHAVIORS: PROGRESS REPORT

The need to observe, describe, and assess teacher and student behavior in the classroom has long been a concern of school administrators, teacher educators, and educational researchers. Discussion and research in this area have produced a voluminous literature and many observational techniques and instruments. Because these instruments mirror their authors' emphases and predilections, they vary in their usefulness for given purposes; moreover, any single instrument can serve only a few of many possible functions in classroom observation. Of necessity, each instrument is a compromise reflecting the conflict between the information desired and the resources available to obtain it. Research using such instruments is similarly limited. As Ryans has observed in a review of research dealing with the assessment of teacher behavior

> An overview of the reports suggests that investigations have been piecemeal and fragmentary for the most part, only occasional attempts have been made to conduct coordinated programmatic research or to relate studies to some theoretical model (Ryans, 1963, p. 415).

In a recent review of the methods and concepts in classroom research, Biddle also comments on the failure of the majority of research workers to provide an analysis of their underlying conceptual structure

> Thus, although a wide variety of classroom phenomena has in fact been investigated, it is difficult for both the reviewer and the investigators to understand the relationships between their findings and those of others (Biddle, 1967, p. 354).

To facilitate programmatic research and, in turn, to promote systematic teacher training and administrative decision-making, a far more comprehensive and flexible observation system is needed. It must, in effect, encompass the objectives of all existing instruments and provide a

coordinated vocabulary for the description of classroom behavior.

The purpose of the Center s taxonomy project has been to design such a system. The present report summarizes the work of the project over the past two years. It presents a rationale for the design of the observation system, reviews the history of its development, and describes its current status. The report concludes with an analysis of several basic issues relating to the development of the taxonomy and a number of recommendations for future refinement and extension of the observation system.

Rationale for the Development of a Flexible Observation System

The literature of research on classroom behavior and the observational techniques used therein has been reviewed elsewhere[1]. These reviews and further consideration of the problem permit some general and specific observations on the development of a flexible observation system.

Previously used instruments can be characterized as either category systems or sign systems. The former typically consist of a few categories into which all observed behaviors can be classed and usually reflect a particular and relatively narrow theoretical position or interest. The latter are composed of lists of teacher acts which may or may not be observed in a particular setting, and usually suggest a broad survey of specific hypotheses rather than a pre-formed theory. The present objective is to produce a descriptive behavioral system which can incorporate both of these approaches. It must therefore be conceived as a universe of classroom behavior descriptors, similar in some respects to the universe of personality

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[1]See Biddle, 1967, Boyd and DeVault, 1966; Kliebard, 1966; Medley and Mitzel, 1963, Remmers, 1963, Ryans, 1963, Simon and Boyers, 1968; and Withall 1960.

trait descriptors being developed by Norman (1966). The universe takes the form of an item pool from which signs or subsystems of categories can be extracted.

The notion of a comprehensive pool from which items can be selected suggests that selection should be guided by one or more models which stratify or otherwise provide organization for the pool. The models should have general theoretical utility, though they need not (and perhaps should not) display particular theoretical orientations. They should, however, be based on some rudimentary conceptions of relevant behavioral processes. Model construction should be guided by what is now known about teacher and student behavior, not by the practical concerns of what can be observed in the classroom. As a by-product, the vocabulary represented in the organized pool may provide a taxonomy of classroom behavior.

The item pool, and the observation procedures associated with it, must permit the description of behavior at varying levels of abstraction and detail, since different levels will be required for different purposes. It must also permit observations to be made, either simultaneously or sequentially, at different levels of specificity and allow these observations to be systematically related to one another. The idea of sequential testing, first developed in industrial quality control and now applied to achievement testing and computer-assisted instruction, may prove useful in this context.

The item pool must be made adaptive and self-developing. New items and modified items might be incorporated into the pool directly from observer use if the system provided for spontaneous recording of critical incidents in classroom behavior. The dimensional structure of the pool would thus change over time as items were added and experience with the system accumulated.

History of the Taxonomy Project

The initial phase of this project grew from concern over the adequacy of rating instruments being used in the Stanford Secondary Teacher Education Program. In the Spring of 1966, the staff of the Stanford Center for Research and Development in Teaching began a study of the Stanford Teacher Competence Appraisal Guide,[2] the major instrument used for the assessment of intern teachers in the Stanford program. This study had two objectives: (a) to determine whether the Appraisal Guide was an adequate measuring instrument for use in the various situations where assessments of teacher behavior were required and, (b) to effect improvements in the Guide if inadequacies were indicated.

The first part of this study was concerned with a detailed analysis of the teaching performance of three intern teachers with comparable profiles in the middle range of the Appraisal Guide. These teachers were observed independently by eight different observers, and each observer prepared a detailed commentary on the extent to which he believed the Appraisal Guide had captured significant aspects of each teacher's classroom behavior. When the individual observer protocols were summarized, it became apparent that many of the observer comments concerning the Appraisal Guide might apply equally well to almost all observational techniques then in existence. The observers felt that any single multi-purpose instrument such as the Appraisal Guide must be a compromise, conditioned by practical constraints, between the need for specific behavioral analysis and the need for summary appraisal of teaching performance.

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[2]See Appendix A.

An analysis of this problem by Center staff members suggested the need for a collection or system of instruments comprising items of summary appraisal, such as those contained in the Appraisal Guide, which would define major areas of teacher behavior, as well as more specific appraisal items which would be grouped under these summary items.

As a first step toward the development of a more comprehensive evaluation instrument, it was decided to build an item pool representing three major domains of classroom behavior, designated as 'attention," "participation," and "explanation." The following items are illustrative of the "attention" domain as it developed during the early stages of the project:

Teacher regains attention by direct word, look or gesture.
Teacher snaps fingers for attention.
Teacher calls attention to class activity.
Teacher has difficulty in maintaining attention.
Teacher distributes attention to many students.
Teacher adjusts pace of lesson according to student attention.
Teacher begins by focusing attention on a topic.

With the elaboration of a more complete rationale for the development of the item pool, the emphasis of the project shifted from the limited objective of improving a specific teacher evaluation instrument to the broader goal of building a comprehensive system for the description of classroom behavior. At this time the name of the project was changed from "Appraisal Guide Revision" to 'A Taxonomy of Teaching Behaviors," which is currently a study within the Heuristic Teaching program.

Development of the Item Pool

The initial outline for the pool was drawn from the summary items of the Appraisal Guide and more specific items derived from the Performance Criteria[3] of the Secondary Teacher Education Program, together with some

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[3]See Appendix B for a summary of the Performance Criteria.

additional items obtained from critiques of these instruments by Center Staff members. Many other items were suggested by a review of existing instruments[4] and by discussions of classroom observation in the research literature.[5] Ad itional items were also written to fill gaps appearing in cross-tabulations of existing item categories. The end result of this activity was a pool of approximately 1500 items.

As the preliminary item pool was accumulated, the project began the process of review and evaluation of the items. The pool of items was cross-indexed according to the key words in each item statement. Given a specified key word, all items either including that word in context or implying the word as an underlying key concept can be drawn from the pool and examined to determine the degree of coverage or redundancy obtained. A few items are given below with the key words underlined in order to illustrate the cross-indexing technique:

Teacher controls student participation through recitation.
Teacher is consistent in controlling student participation.
Teacher guides students without being mandatory.
Teacher directs rather than participates.

Under this system of indexing, one statement can appear in the pool several times, depending on the number of key words. Consequently, the original 1500 item statements can be used to generate a pool of approximately 5,000 items.

Each item was further classified as referring to behavior (a) that is ratable, or (b) whose frequency is countable, or (c) that can be treated in both ways. A sample of items classified in this way is given below:

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[4]Among the instruments included in this review were those to be found in Bush, 1941, Medley and Mitzel, 1958, Ryans, 1960; and Smith, 1962.

[5]Biddle, 1967, Boyd and DeVault, 1966, Kliebard, 1966, Medley and Mitzel, 1963, Remmers, 1963, Ryans, 1963; Simon and Boyer, 1963, and Withall, 1960.

Items to be rated:

Teacher gives clear and complete instructions for taking test.
Teacher-student communication is clear throughout lesson.
Teacher is impartial in treatment of students.

Items whose frequency of occurrence would be counted:

Teacher rephrases or restates student response.
Teacher refers to self as source of authority.
Teacher expresses approval of student initiated behavior.

Items to be rated or counted:

Teacher participates in class activities without dominating them.
Teacher illustrates main ideas by use of examples.
Teacher cares for individual student problems without disturbing other students.

During the editing process the entire pool was reviewed in order to eliminate duplicate items and the format of the item statements was standardized. Each item is stated in terms of teacher behavior. All ratable items are stated in positive terms, i.e. "Teacher gives clear and complete instructions for taking test," rather than "Teacher does not give clear and complete directions for taking test." Frequency items are stated in the present tense, are singular in number, and represent a positive occurrence of a behavior.[6]

Organizing Structures

A number of investigations have been undertaken to explore alternative organizing structures and models for the pool. Several of these will be briefly described in this section of the paper. One pilot study focused on the development of a composite category system based on the similarity of judgments made by experienced supervisors in the Stanford Secondary Teacher Education Program. Eighteen supervisors were given packages containing 195

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[6] See Medley and Mitzel, 1963, 302.

items which represented a stratified random sample of the entire pool. The supervisors were asked to group these items into classes of related items. No indication was given as to an appropriate number of categories. The eighteen different classification systems resulting from this procedure were then analyzed in order to obtain a composite category system for the supervisors as a group. While there was considerable variance within the group as to the number of categories selected, most supervisors divided the 195 items into 15 to 20 categories. There was also substantial agreement in the manner in which the supervisors grouped items together, as revealed through the analysis of the 18 X 195 confusion matrix.

Subsequently, three members of the Center staff developed a classification scheme for the entire pool of items. As in the pilot study described above, similar items were grouped together, but in this case the process of classification was extended to include all 1,500 items. Nineteen sections of the pool were identified in this way, and tentative descriptive labels were assigned to each section of the pool. The results of this classification procedure are given in Appendix C.

Several attempts were made to classify the item pool in terms of other existing category systems, including those developed by Smith and Meux (1962) and Openshaw and Cyphert (1966). Although large sub-sets of the pool were easily classifiable within these systems, none of these category systems was found to be broad enough to encompass the entire range of items found in the pool.

Another study concerned with organizing structures for the item pool was designed to explore alternative ways of selecting items from the pool for use in different teacher-training situations. Center staff members

developed two category systems for the selection of items: (a) for use at different points in time during the training program, and (b) to serve different evaluation functions.

The system for classifying items according to the time at which they are used consists of three categories: (a) items to be used in summary evaluations of teachers, (b) items to be used repeatedly during the training program to assess improvement of teacher performance, and (c) items to be used in follow-up evaluations to check on the maintenance of established behavior patterns.

The functional classification system comprises four categories: (a) diagnosis - items used to identify areas for training or retraining, (b) upgrading teacher performance, (c) critical judgments on teacher effectiveness, and (d) potential predictors of teaching success.

It should be noted that the categories in both scales are not considered to be mutually exclusive. A single item might serve several evaluation functions and be used at different points in time during the training sequence.

Supervisors from the Secondary Teacher Education Program were asked to classify sections of the item pool according to these two category systems. The analysis of the data resulting from this study has yielded seven partially overlapping sub-sets of the item pool which suggests the many different ways in which the item pool could be used as an evaluation instrument in a teacher training program.

While the studies described above are all exploratory in nature, they have served to demonstrate the richness of the vocabulary represented by the preliminary pool of items and the potential of this approach for research in teaching and for the assessment of teacher performance.

Computerized System

The overall purpose of the taxonomy project is to design an instrument for the description of classroom behavior which is much more flexible and comprehensive than previous instruments. This instrument must serve the needs of a variety of research projects and teacher evaluation programs while permitting coordination of data resulting from specific uses of the instrument. The flexibility necessary to accomplish these aims can only be attained through computerization of the observation system.

This section of the paper describes the computer-based system at its current state of development. Some thoughts on the future evolution of the system are presented in the final section.

The item pool is stored on-line in the IBM 360-67 computer at the Stanford Computation Center. On-line storage permits easy selection of items through random access techniques and eliminates the problem of handling large numbers of cards. Items can be withdrawn, modified, and replaced using a remote terminal located in the Research and Development Center and connected to the central computer. New items can be added to the pool in the same manner.

Each item stored in the computer consists of three parts: (a) the item number, (b) the item statement itself, and (c) the classification of the item as ratable, countable, or both.[7] Items are selected by number, using either the remote terminal or a program designed for a specific use of the item pool. At present two such programs form a part of the computerized system.

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[7] See pages 6 and 7 of this report for a description of this classification system.

The first program allows the investigator to select those items which he wishes to examine or to use for a specific research project. This program produces a listing of the items requested or a deck of IBM cards with one item punched and printed on each card.

A second program facilitates the use of the item pool in the evaluation of a teacher's classroom performance by generating rating forms which can be used in classroom observation. An observer may request up to twenty-five items from the pool for a single observation. These items are printed on the rating form along with the appropriate scales for rating or counting behaviors observed in the classroom. A sample of the rating form produced through the use of this program is given in Figure 1.

Summary and Recommendations

During the past two years, the taxonomy project has been concerned with four major areas: (a) the elaboration of a rationale to guide research and development, (b) the generation of a comprehensive pool of items to serve as the basis of a descriptive behavioral system and the revision and editing of these items, (c) the investigation of alternative organizing structures for the pool of items, and (d) the development of a computerized system to facilitate the use of the item pool. The experience gained during this period and further consideration of the problems involved in developing the taxonomy lead us to raise certain issues and to make a number of recommendations concerning the future development of the project. These concluding observations are organized according to the four major concerns outlined above.

1. Rationale of the project. The rationale of this project embodies two distinct research and development goals: the development of a critical

language for the analysis of classroom behavior, and the production of teacher evaluation instruments. While these two goals are not mutually exclusive and, indeed, should complement one another, it is necessary to give careful consideration to the way in which these purposes interact in the ongoing project.

It can be argued, for example, that the work of developing models, syntax, and vocabulary for the taxonomy should precede the application of the observation system as an instrument for the evaluation of teachers. On the other hand, there may be important benefits to be derived from the use of the rich, if somewhat unorganized, vocabulary represented by the current pool of items as an evaluation instrument.

2. The item pool. In its present state of development, the item pool contains 1137 statements which are descriptive of teacher classroom behavior at varying levels of abstraction and detail. It has been compiled from many different sources, and its development has not been guided by a commitment to any existing category system or theoretical orientation. Thus it represents a kind of rough dictionary of classroom variables.

The classification scheme summarized in Appendix C shows what kind of items are represented in the pool and how they are distributed. We find, for example, that almost 10% of the items are classified as referring to the teacher's habits of speech and language patterns, the way she uses her voice, and the gestures she employs while teaching (Section 2). The number of items in this section appears disproportionate in relation to the total size of the pool.

Section 1 of the pool contains a number of items which refer to the personality of the teacher rather than to observed classroom behavior. In

order to use these items, the observer must make varying degrees of inference from what actually takes place in the classroom. These items should be carefully examined to determine whether they should be included in the current system.

Approximately 25% of the items (Sections 8, 10, 11, 13, 14, 16. 17) have been classified under such Performance Criteria[8] as "the lecture," "introducing a unit," "making assignments," "oral reports," and the like. Many of these items are highly specific to certain teaching activities such as lecturing and making assignments. Items of this sort also appear to be overrepresented in the current pool.

A preliminary survey of the pool has shown that many of the items in Sections 7, 9, 12, and 15 - approximately 10 to 15 percent of the pool - are related to the definitions of heuristic teaching which have been formulated by Center staff members.[9] Such items appear to be underrepresented at the present time.

In summary, it is suggested that certain imbalances now exist in the pool and that these should be corrected by expanding the pool to include new dimensions of classroom behavior. More intensive study of the pool is needed to determine those areas in which new items shouls be written.

Two major sources are suggested as points of reference for future study. First, the definitions of heuristic teaching and reports of relevant recent Center research should be reviewed. Second, a file of original instruments used in observational studies should be collected. A number of such instruments were reviewed when the item pool was first developed, but many new

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[8]See Appendix B.

[9]See Stanford Center for Research and Development in Teaching, Second Annual Report, April, 1968, pp. 151-154.

studies have been published since that time. These and other sources may suggest important dimensions of classroom behavior which are not covered by the current pool of items, as well as possible extensions of the pool.

Another issue related to the development of the item pool concerns the criteria used for item selection and revision. Thus far the project has followed an editorial policy based largely on the recommendations of Medley and Mitzel concerning the construction of items for observation schedules (Medley and Mitzel, 1963, 299-302). These recommendations were based on an extensive review of the literature, but the focus of the authors was somewhat different from the objectives of the taxonomy project. This project seeks to design an observation system which is far broader and more comprehensive than those used in previous studies. Snow (1967) has argued that the development of a critical language for the analysis of classroom behavior has been limited by overconcern for the practical problems of classroom observation; he recommends the construction of a vocabulary "far more extensive than anything a classroom observer could be expected to use" (p. 8). With this criticism in mind, it is suggested that the editorial policy of the project be carefully reviewed in order to insure that the item pool is not limited to the kinds of items which have been used in previous studies.

3. Organizing structures. The preliminary investigations designed to explore alternative organizing structures for the pool have followed three different approaches: (a) the key word method of indexing item statements, (b) the development of composite category systems based upon similarity of judgments, and (c) the application of existing category systems. Since none of these methods has proven to be entirely satisfactory, the limitations of each approach will be discussed in turn before proceeding to a short descrip-

tion of a fourth method, the facet-theoretic approach, which is recommended as a basis for future development of the taxonomy.

The key word indexing process was employed at the time the item pool was first being developed. This approach presents a number of problems. Although it is a simple matter to identify the key words included in the context of the item statements themselves, it is much more difficult to specify those key words which may be implied by the item. Two statements might contain entirely different key words in context yet imply the same underlying concept. A thoroughgoing analysis of this type could not be carried out without prior agreement on a dictionary of acceptable key words. Commitment to a standard dictionary of this kind might restrict the development of the item pool.

The major result of the attempts to establish a composite category system based upon similarity of judgments is the classification system described above.[10] This system has helped to demonstrate the range of behavioral statements contained in the pool and to identify areas where the item coverage is inadequate or redundant. However, it reflects a limited theoretical concern in that it was developed primarily to aid in selecting items for use in a teacher evaluation instrument. It is doubtful that this approach will prove to be very fruitful to the process of taxonomic development, although it may be a useful device for the selection of items to be used in supervision.

The application of existing category systems has also been useful in studying the range of classroom behaviors represented in the pool. Since most of these category systems reflect rather limited theoretical concerns,

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[10]See page 9.

this approach is not recommended for the future development of organizing structures for the item pool

It has been suggested that the facet-theoretic approach of Foa (1965) provides a suitable model for the development of a category system (Snow, 1967, 1968). Applying the logic of this method to taxonomic development would require that the domain of classroom behavior be divided into facets. Each facet would contain a fixed number of elements, and all combinations of these elements would define the domain. This approach would "aim not at categories into which observed signs can be classed but rather out of which signs or cue variables can be selected or constructed' (Snow, 1967, pp. 7-8).

The work of the taxonomy project, reviews of the literature, and the results of previous observation studies suggest a number of dimensions of classroom behavior which could be incorporated as facets and elements of the proposed taxonomy. While it is still premature to attempt a definitive statement on the nature of the taxonomy, Table 1 illustrates some of these dimensions and how they might form a part of the taxonomy.

A facet approach to the development of the taxonomy would produce a large number of individual cells and many possible combinations of these cells. Items would then be constructed both from the individual cells and from combinations of cells. The adoption of the facet model for the taxonomy would lead to the development of an observation system covering a much wider range of classroom behaviors that those which have been used in previous studies.

4. The computerized system. At the present time the computerized system provides a convenient method of storing and working with the item pool and includes a rudimentary processing component which can be used to print selected portions of the item pool and to prepare rating forms for use in classroom

TABLE 1

DIMENSIONS OF CLASSROOM BEHAVIOR

Facets	Elements
Source of behavior:	Teacher Student
Type of behavior:	Verbal Non-verbal Ratable Frequency Count Both
Pedagogical content: (Based in part on Bellack, 1965)	Structuring Stating Soliciting Responding Reacting Evaluating Controlling
Affective component:	Praise Encouragement Acceptance Neutral Rejection Criticism
Learner level of processing content: (Snow, 1968)	Ignoring Monitoring Orientinging Attending Receiving . . . . . . Higher order processing

observation. The adoption of a facet approach to the construction of a taxonomy would necessitate some changes in the item selection techniques. At present items can only be selected by number, but in the future it should be possible to select items by more sophisticated techniques. The system should allow for selection by facet, by elements, or by combinations of facets and elements. It is recommended that a conceptualization of the workings of the system under a fully developed taxonomy be prepared at this time so that sufficient flexibility can be built into the computerized system to avoid major reprogramming as the system evolves.

An important component of the computerized system is the data storage and processing section. Work on this section is not far advanced. A general outline of a program to store supervisor ratings of interns and to process and report comparative and cumulative ratings on intern performance has been prepared, but this has not yet been incorporated into the system.

The immediate and long range uses of the system should be carefully considered in relation to the goals of the project and the cost factors involved in specific uses of the system. It is relatively inexpensive to store the item pool on-line and to develop methods of item selection as described above. Costs increase substantially as the system is regularly used to generate rating forms. In order to use the system most effectively, rating forms should be produced daily or at least several times a week. Maximum flexibility would be gained by installing a remote terminal in the Secondary Education office or in the Escondido School during the operation of the Center's Micro Teaching Clinic. In this way rating forms could be prepared as needed and data from observation of the interns could be continuously fed into the system.

As a long range goal the system can be conceived as a kind of educational data bank, including computerized data accumulation and processing components. Specific research studies or teacher-training projects could be planned with appropriate sampling from the item pool. These studies could contribute data and special findings to more general item analyses, teacher performance analyses, and model development. In an automated system, each use of a given item or observation of a given teacher could be indexed, accumulated records or ratings could be readily produced. Finally, the system should be closely coordinated with the continuing application of other computer technology and should incorporate the use of videotape and time-lapse photography for recording classroom behavior.

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Appendix A

A Summary of the

Stanford Teacher Competence Appraisal Guide

1.	Clarity of Aims	The purposes of the lesson are clear.
2.	Appropriateness of Aims.	The aims are neither too easy nor too difficult for the pupils. They are appropriate, and are accepted by the pupils.
3.	Organization of the Lesson	The individual parts of the lesson are clearly related to each other in an appropriate way. The total organization facilitates what is to be learned.
4.	Selection of Content	The content is appropriate for the aims of the lesson, the level of the class, and the teaching method.
5.	Selection of Materials	The specific instructional materials and human resources used are clearly related to the content of the lesson and complement the selected method of instruction.
6.	Beginning the Lesson	Pupils come quickly to attention. They direct themselves to the tasks to be accomplished.
7.	Clarity of Presentation.	The content of the lesson is presented so that it is understandable to the pupils. Different points of view and specific illustrations are used when appropriate.
8.	Pacing of the Lesson	The movement from one part of the lesson to the next is governed by the pupils' achievement. The teacher "stays with the class" and adjusts the tempo accordingly.
9,	Pupil Participation and Attention	The class is attentive. When appropriate the pupils actively participate in the lesson.
10.	Ending the Lesson.	The lesson is ended when the pupils have achieved the aims of instruction. There is a deliberate attempt to tie together the planned and chance events of the lesson and relate them to the immediate and long range aims of instruction.

Appendix A, Continued

11.	Teacher-Pupil Rapport.	The personal relationships between pupils and the teacher are harmonious.
12.	Variety of Evaluative Procedures.	The teacher devises and uses an adequate variety of procedures, both formal and informal, to evaluate progress in all of the aims of instruction.
13.	Use of Evaluation to Improve Teaching and Learning	The results of evaluation are carefully reviewed by teacher and pupils for the purpose of improving teaching and learning.
14.	Concern for Professional Standards and Growth	The teacher helps, particularly in his specialty, to define and to enforce standards (1) for selecting, training, and licensing of teachers and (2) for working conditions, tools, and equipment necessary for efficient and effective practice.
15.	Effectiveness in School Staff Relationships.	The teacher is respectful and considerate of his colleagues. He demonstrates awareness of their personal concerns and professional development.
16.	Concern for the Total School Program	The teacher's concern is not simply for his courses and his students. He sees himself as part of the total school endeavor and actively works with other teachers, students, and administrators to bring about the success of the program.
17.	Constructive Participation in Community Affairs	The teacher understands the particular community context in which he works and helps to translate the purposes of the school's program to the community. He is a responsible member of the community.

Appendix B

A Summary of the Performance Criteria of the Stanford Secondary Teacher Education Program

1. Making Assignments.
2. Monitoring In-Class Assignments.
3. Testing Procedures.
4. Introducing a Unit.
5. Summarizing a Unit.
6. The Lecture.
7. Teacher-Led Discussions.
8. Small Group Work.
9. Using Audio-Visual Aids.
10. Using Oral Reports.
11. Individualized Assignment or Study.
12. Problem Solving (Instructive Teaching).
13. Review and Correction of Assignments.
14. Panel Discussions.

Appendix C

Preliminary Classification of the Item Pool

1. Personal characteristics of the teacher: 78 items.
2. Speech, voice, gestures, language patterns: 103 items.
3. Lesson planning, goals, aims: 70 items.
4. Evaluation: 84 items.
5. Motivation: 71 items.
6. Discipline: 80 items.
7. Teacher-Student Interaction: 110 items.
8. Lecturing: 56 items.
9. Questioning and responding: 69 items.
10. Assignments: 42 items.
11. Instructional materials and Audio-Visual aids: 37 items.
12. Feedback and reinforcement: 28 items.
13. Review and summary: 21 items.
14. Introducing unit, pacing, transfer: 37 items.
15. Inductive teaching and problem solving: 22 items.
16. Discussions and small group work: 68 items.
17. Oral reports and panel discussions: 31 items.
18. Individualization of instruction: 30 items.
19. Unclassified: 95 items.

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STANFORD CENTER FOR RESEARCH AND DEVELOPMENT IN TEACHING

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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A Taxonomy of Teaching Behaviors

Listing and Preliminary Classification of the Item Pool

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SP004716

Preliminary Classification of the Item Pool

1. Personal and professional characteristics:	Items 1-78
2. Speech, voice, gestures, language patterns:	Items 79-186
3. Lesson planning, goals, aims and objectives:	Items 187-256
4. Evaluation:	Items 257-340
5. Motivation:	Items 341-411
6. Discipline:	Items 442-521
7. Teacher-student Interaction:	Items 1028-1137
8. Lecturing	Items 591-646
9. Questioning and responding:	Items 647-715
10. Making assignments, monitoring in-class assignments, review and correction of assignments:	Items 716-757
11. Use of instructional materials and audio-visual aids:	Items 758-794
12. Feedback and reinforcement:	Items 805-832
13. Review, ending a lesson, summary:	Items 849-869
14. Introducing a unit, pacing, transfer:	Items 870-906
15. Inductive teaching and problem solving:	Items 907-928
16. Discussions and small group work:	Items 929-996
17. Oral reports and panel discussions:	Items 997-1027
18. -Individual differences and individualization of instruction	Items 412-441
19. General skills:	Items 522-590 Items 795-804 Items 833-848

1.	Teacher has a sense of humor.	R
2.	Teacher's patience seems strained.	R
3.	Teacher is dignified without being formal.	R
4.	Teacher looks depressed, unhappy.	R
5.	Teacher speaks optimistically of the future.	R
6.	Teacher is easily upset.	B
7.	Teacher is aloof.	R
8.	Teacher changes facial expressions.	F
9.	Teacher's clothes are neat and clean and in good taste.	R
10.	Teacher is untidy or sloppily dressed.	R
11.	Teacher's dress is drab, colorless.	R
12.	Teacher is clean and neat.	R
13.	Teacher seems listless; lacks enthusiasm.	R
14.	Teacher is painstaking and careful.	R
15.	Teacher is unruffled in stressful situation.	R
16.	Teacher is impatient with interruptions and digressions.	R
17.	Teacher doesn't laugh at all.	P
18.	Teacher loses temper.	B
19.	Teacher smiles.	F
20.	Teacher nods head.	F
21.	Teacher exhibits irritating mannerisms.	B
22.	Teacher gets things done on time.	R
23.	Teacher makes effort to be pleasant and friendly.	R
24.	Teacher is consistent and predictable.	R
25.	Teacher displays nervous habits.	B
26.	Teacher lacks enthusiasm.	B
27.	Teacher acts bored.	B
28.	Teacher does not take self too seriously.	R
29.	Teacher lacks animation.	R
30.	Teacher's ideas are pedantic, boring.	R
31.	Teacher's ideas are objective, unbiased.	R
32.	Teacher imposes his own biases on students.	F
33.	Teacher's ideas are prejudiced, biased.	F
34.	Teacher is clever and witty, but not smart-alecky.	R
35.	Teacher is enthusiastic, animated.	R
36.	Teacher appears uncertain of self.	R
37.	Teacher appears confident and competent.	R
38.	Teacher shows pessimistic behavior pattern.	F
39	Teacher shows optimistic behavior pattern.	R
40.	Teacher is always punctual.	R
41.	Teacher is always self-pitying.	R
42.	Teacher complains.	R
43.	Teacher is demanding.	R
44.	Teacher is calm and controlled.	R
45.	Teacher is unhurried, not nervous.	R
46.	Teacher is patient beyond ordinary limits.	R
47.	Teacher expresses sympathy.	B
48.	Teacher appears enthusiastic about activity.	R
49.	-Teacher is firm but fair.	R
50.	Teacher is flexible and extemporizes according to situation.	R
51.	Teacher is self-controlled.	R
52.	Teacher is dictatorial.	R
53.	Admits responsibility for own inconvenient, unjust or unfair action.	F
54	Teacher admits own mistakes.	F
55.	Teacher has contagious enthusiasm for subject being studied	R
56.	Teacher has limited background in subject.	R

57.	Teacher has good understanding of subject matter.	R
58.	Teacher has good understanding of general culture	R
59.	Teacher lacks breadth of cultural background outside own field.	R
60.	Teacher applies new developments in her subject area	B
61.	Teacher is authority in own subject area.	R
62.	Teacher is up-to-date in knowledge of subject matter.	R
63.	Teacher is well-read in general curriculum.	R
64.	Teacher expresses optimistic view of education and fellow teachers.	R
65.	Teacher appears to be very interested in subject.	R
66.	Teacher acquires adequate academic preparation.	R
67.	Teacher works to improve professional standards.	R
68.	Teacher uses available library services.	B
69.	Teacher accepts assignments in areas of special competence	R
70.	Teacher contributes to curriculum development.	R
71.	Teacher tries new teaching methodology.	B
72.	Teacher seeks professional advancement through in-service training.	R
73.	Teacher acquires adequate professional preparation.	R
74.	Teacher's range of knowledge allows flexibility and spontaneity.	R
75.	Teacher admits ignorance or inability	F
76.	Teacher willingly accepts suggestions for professional improvement.	B
77.	Teacher is reluctant to accept supervisor's suggestions.	F
78.	Teacher accepts supervisor's suggestions.	F
79.	Teacher varies speech rate effectively.	R
80.	Teacher varies speech rate for emphasis.	R
81.	Teacher's speech rate is too slow for clarity.	R
82.	Teacher slows speech rate for emphasis.	F
83.	Teacher interrupts own speech with coughs, etc.	F
84.	Teacher gesticulates for emphasis.	F
85.	Teacher gestures wildly.	F
86.	Teacher uses extraneous body movements for emphasis.	F
87.	Teacher's eyes shift nervously while lecturing.	F
88.	Teacher uses body movements	F
89.	Teacher gestures freely with arms.	F
90.	Teacher changes facial expressions.	F
91.	Teacher points toward objects.	F
92.	Teacher looks at Student as a signal to recite.	F
93.	Teacher touches Student as a signal to recite.	F
94.	Teacher points at Student to recite.	F
95.	Teacher nods at Student as signal to recite.	F
96.	Teacher changes location.	F
97.	Teacher stands apart, removed from class activity.	F
98.	Teacher stands at blackboard.	F
99.	Teacher stands behind desk.	F
100.	Teacher moves freely around classroom.	F
101.	Teacher sits in chair.	F
102.	Teacher moves up and down center of room.	F
103.	Teacher giggles.	F
104.	Teacher smiles pleasantly or appreciatively.	F
105.	Teacher changes voice quality.	F

106. Teacher has clear, pleasant voice. R
107. Teacher's inflectional patterns improve listening comprehension. R
108. Teacher's voice is expressive; has good inflection. R
109. Teacher's tone of voice is annoyed, disgusted. F
110. Teacher's tone of voice is accepting, warm, enthusiastic. R
111. Teacher's tone of voice is hurt, pained. F
112. Teacher enunciates well. R
113. Teacher's speech rate is too fast for clarity. F
114. Teacher does not falter or hesitate. R
115. Teacher has pleasant voice. R
116. Teacher's tone of voice is normal. R
117. Teacher's tone of voice is firm, serious. R
118. Teacher's speech is audible. R
119. Teacher speaks quietly and slowly. F
120. Teacher uses personal reference words. F
121. Teacher uses first person pronouns. F
122. Teacher uses first person plural predominantly. R
123. Teacher uses first person singular predominantly. F
124. Teacher connects phrase segments with conjunctions. F
125. Teacher uses words or sentences in contrastive pairs. F
126. Teacher defines technical words with sentences. F
127. Teacher uses words related to Students' experience. F
128. Teacher uses abstract words. F
129. Teacher uses concrete words. F
130. Teacher uses polysyllabic words. F
131. Teacher overuses certain words. F
132. Teacher uses vocabulary which expands Students' vocabulary F
133. Teacher varies difficulty of word usage. F
134. Teacher uses prepositional phrases. F
135. Teacher supplies one or more synonyms for technical terms. F
136. Teacher uses words not in popular use. F
137. Teacher defines meaning of technical word. F
138. Teacher uses concrete nouns. F
139. Teacher uses associative terms. F
140. Teacher uses colorful words. F
141. Teacher uses key affective words. F
142. Teacher connects clauses with conjunctions. F
143. Teacher uses phrases that show time relations. F
144. Teacher uses subordinate grammatical units to show concept subordination. F
145. Teacher shows interrelations by compound phrases, clauses F
146. Teacher shows relations with modifying words, phrases, clauses. B
147. Teacher uses complex sentences. F
148. Teacher uses simple sentences. F
149. Teacher uses right recursive sentences. F
150. Teacher uses exclamatory sentences. F
151. Teacher uses imperative sentences. F
152. Teacher uses declarative sentences. F
153. Teacher uses interrogative sentences. F
154. Teacher uses run-on sentences. F
155. Teacher uses sentences in negative mode. F
156. Teacher uses sentences in passive voice. F
157. Teacher words sentences in order to show semantic relationships. F

158. Teacher uses sentences with right recursive syntax. F
159. Teacher varies sentence length to adjust cognitive load. F
160. Teacher uses personal reference sentences. F
161. Teacher uses self-imbedded sentences. F
162. Teacher's sentences have self-imbedded syntax. F
163. Teacher uses sentences that show space relations. F
164. Teacher uses sentences praising class. F
165. Teacher uses sentences that show cause-effect relations. F
166. Teacher uses sentence fragments for emphasis. F
167. Teacher uses sentences to state facts. F
168. Teacher's statement is repetition of previous statement. F
169. Teacher loses clarity by overlong strings of modifiers. F
170. Teacher varies sentence length to achieve clarity. F
171. Teacher uses superordinate sentence structures to clarify main ideas. F
172. Teacher's disjointed sentences fail to clarify relationships. F
173. Teacher's choice of sentences promotes clarity. F
174. -Teacher expresses difficult concepts in simple sentences. F
175. Teacher's sentences have denotative meaning. F
176. Teacher's sentences have connotative meaning. F
177. Teacher uses sentences irrelevant to main topic. F
178. Teacher juxtaposes positive and negative sentences. F
179. Teacher uses compound sentences to express concept relations F
180. Teacher's sentences are related by connectors. F
181. Teacher uses right recursive paragraphs. F
182. Teacher uses left recursive paragraphs. F
184. Teacher asks SS to solve linguistics problem. F
185. Teacher uses linguistics problems in study of grammar. B
186. Teacher sets good example in use of language. B
187. Teacher states goals. F
188. Teacher announces goals or criterion behavior. F
189. Teacher tells the aims of lesson unit or course. F
190. Teacher clarifies purposes. R
191. Teacher verbalizes aims clearly. R
192. Teacher points out importance of goals. F
193. Teacher demonstrates appropriateness of aims. F
194. Teacher invites students to react to goals. F
195. Teacher keeps students' goals similar to own. R
196. Teacher helps students formulate objectives. F
197. Teacher's goals are stated in terms of measurable changes in students; behavior. R
198. Teacher's goals are obtainable. R
199. Teacher's goals are worthwhile. R
200. Teacher considers resources available in planning his work. R
201. Teacher's goals are appropriate to class composition . R
202. Teacher's aims are appropriate to students' ability. R
203. Teacher sets goals which can be reached by every member of the class. R
204. Teacher's goals are acceptable and worthwhile to students. R
205. Teacher ascertains that purposes are clear to students. R
206. Teacher's aims or objectives are clear to the students. R
207. Teacher's aims are accepted by students. R
208. Teacher improves class goals in light of student and community needs. R

209. Teacher's goals challenge each student to do his best. R
210. Teacher continuously re-evaluates desirability of goals. R
211. Teacher achieves long-term aims. R
212. Teacher achieves short-term aims. R
213. Teacher maintains progress toward objective. R
214. Teacher is competent in formulating plans. R
215. Teacher provides evidence of careful planning. R
216. Teacher plans sequence of tasks. F
217. Teacher outlines sequence beforehand. F
218. Teacher outlines sequence after development. F
219. Teacher selects best teaching plan for reaching class goals. R
220. Teacher selects content appropriate to desired skill development. R
221. Teacher selects content appropriate to desired competence. R
222. Teacher selects plan or method appropriate for goal achievement. R
223. Teacher's selection of content is appropriate for goals of lesson. R
224. Teacher considers students' readiness when selecting lesson content. R
225. Teacher considers students' motivation when selecting lesson element. R
226. Teacher selects activities on basis of individual abilities/ interests. R
227. Teacher varies content difficulty. R
228. Teacher selects content appropriate for level of class. R
229. Teacher selects procedures to enhance lesson for each student. R
230. Teacher's selection of activities is directly related to aims R
231. Teacher adapts activities according to students' stated needs and interests R
232. Teacher selects lesson content which is relevant to students. R
233. Teacher relates specific aims to general goals. R
234. Teacher's content objective is a rule or set of rules. F
235. Teacher's content objective is to establish conditions for... concept F
236. Teacher's content objective is cause-effect relationship. F
237. Teacher's content objective is to evaluate goodness, correctness, etc. F
238. Teacher's content objective is to interpret meaning or significance. F
239. Teacher's content objective is a procedure. F
240. Teacher's content objective is a functional system. F
241. Teacher organizes lesson to facilitate learning. R
242. Teacher organizes lesson in terms of cognitive complexity of content. R
243. Teacher organizes lesson on fundamental operations or postulates. R
244. Teacher structures lesson with problem-solving strategies. B
245. Teacher organizes activities to use time efficiently. R
246. Teacher uses activities to supplement basic text or other materials. B
247. Teacher's content materials and method meet students' vocational needs. R

248. Teacher applies subject matter to everyday life. B
249. Teacher stresses only the immediate significance of the lesson. F
250. Teacher is consistent in the relative importance placed on content. R
251. Teacher's special competency is influential in selection of course content. R
252. Teacher revises course material to insure timeliness. R
253. Teacher takes a non-critical approach to topics. R
254. Teacher takes constructively critical approach to content. F
255. Teacher is flexible within overall plan or organization. R
256. Teacher's lesson planning shows knowledge of students and subject matter. R
257. Teacher evaluates only learning of content. F
258. Teacher evaluates thoroughly all types of learning. R
259. Teacher acknowledges students' academic and personal accomplishments. R
260. Teacher uses best evaluation mode to show each student his progress. R
261. Teacher evaluates progress with individuals at appropriate intervals. R
262. Teacher evaluates student performance frequently. R
263. Teacher uses comprehensive procedure to evaluate students' performances. R
264. Teacher develops realistic standards of achievement with each student. R
265. Teacher informs students of the basis for evaluation. B
266. Teacher elicits feedback to reveal student understanding of lesson. B
267. Teacher helps student recognize learning difficulty. R
268. Teacher comments on causes of unsatisfactory progress. F
269. Teacher ascertains that students have organized work plan. R
270. Teacher gives and evaluates own personal views. F
271. Teacher uses excercises or applications to evaluate understanding. F
272. Teacher evaluates validity of student's utterance. F
273. Teacher evaluates propriety of student's utterance. F
274. Teacher uses distinctly negative evaluation. F
275. Teacher uses distinctly affirmative evaluation. F
276. Teacher takes exception to student's response. F
277. Teacher corrects student's idea. F
278. Teacher expresses reservation in evaluation commentary. F
279. Teacher evaluates student's substantive response. F
280. Teacher rates student's response equivocally. F
281. Teacher evaluates response ambiguously. F
282. Teacher repeats student's response without evaluation. F
283. Teacher conveys understanding of student's statement. F
284. Teacher criticizes student. F
285. Teacher bases criticism of student's utterance on factual evidence. F
286. Teacher bases criticism of student's utterance on hearsay. F
287. Teacher critizes destructively F
288. Teacher is hypercritical, fault-finding R

289. Teacher notes accuracies, not mistakes. R

290. Teacher notes mistakes, not good points. F
291. Teacher encourages Ss to evaluate their own accomplishments. B
292. Teacher directs Ss evaluation of own performance. B
293. Teacher encourages Ss to write their own tests. F
294. Teacher encourages Ss to find better ways to measure own progress. F
295. Teacher and Ss cooperatively evaluate Ss progress. F
296. Teacher and Ss relate individual test performance to class goals. F
297. Teacher questions class about assigned textbook content. F
298. Teacher approves of Students' performance on homework. F
299. Teacher asks about homework assignment. F
300. Teacher uses test effectively. B
301. Teacher uses test to measure students' progress. B
302. Teacher innovates evaluation instruments. B
303. Teacher constructs each test item to measure a specific behavior. R
304. Test items correspond to instructional objectives. R
305. Teacher insures that length of test is appropriate to time. R
306. Teacher's test questions are clear to students. R
307. Teacher's test directions are clear to students. R
308 Teacher provides students with guides for study. B
309. Teacher reviews major points with students. B
310. Teacher administers test at appropriate time. R
311. Teacher shows relationship between test and instructional objective. B
312. Teacher specifies how test will be evaluated. B
313. Teacher gives clear and complete instructions for taking test. R
314. Teacher makes arrangements for students who complete test early B
315. Teacher monitors test to reduce distractions. F
316. Teacher monitors test to discourage cheating. F
317. Teacher monitors test to provide additional clarification. F
318. Teacher alerts all students to problems which develop and require clarification. F
319. Teacher takes care of students; individual problems without disturbing others. B
320. Teacher uses test results to evaluate previous instruction. B
321. Teacher uses test results to plan for future instruction. B
322. Teacher uses test results to reteach unlearned concepts or skills. B
323. Teacher uses test results to reteach unlearned concepts or skills. B
324. Teacher shows students relationship between test achievement and aims of instruction. B
325. Teacher uses test to evaluate teaching effectiveness. R
326. Teacher uses tests to improve teaching effectiveness. R
327. Teacher modifies course according to test results. B
328. Teacher changes teaching method because of test results. B
329. Teacher uses test results to encourage further learning. R
330. Teacher helps students interpret results of tests. R
331. Teacher helps students identify behaviors being tested. R

332. Teacher does not change students' grades. F
333. Teacher keeps accurate record of grades. R
334. Teacher grades students objectively. B
335. Teacher encourages students to earn grades with effort. F
336. Teacher follows institution's grading system. R
337. -Teacher grades students fairly. R
338. Teacher uses cumulative records in students' evaluation. F
339. Teacher gathers information for use in counseling. F
340. Teacher uses guidance information in students' files. F
341. Teacher stimulates students' interest by own lecture. R
342. Teacher motivates students before starting lecture. R
343. Teacher stimulates students' interest by varying teaching method. F
344. Teacher stimulates students; interest by varying class activities. F
345. Teacher maintains high interest level of class. R
346. Teacher uses penalties to motivate students. F
347. Teacher uses rewards to motivate students. B
348. Teacher innovates to take advantage of interest, situation etc. F
349. Teacher encourages students to suggest other methods or activ. F
350. Teacher encourages students to suggest other activities. F
351. Teacher encourages students to do group work. F
352. Teacher encourages students to decorate room. R
353. Teacher encourages students to go into another room to work. F
354. Teacher encourages students to go on field trips. F
355. Teacher encourages students to work at blackboard. F
356. Teacher encourages students to read aloud from book. F
357. Teacher encourages students to summarize. F
358. Teacher encourages students to formulate conclusions. F
359. Teacher encourages students to study materials other than books F
360. Teacher encourages students to read text at their seats. F
361. Teacher encourages students to give talks. F
362. Teacher encourages students to make written reports. F
363. Teacher encourages students to give oral reports. F
364. Teacher encourages independent study. F
365. Teacher encourages students to present dramatic plays. F
366. Teacher encourages students to role play. F
367. Teacher encourages students to suggest useful human resources. F
368. Teacher encourages students to help in organization of class. F
369. Teacher stimulates interest through materials and techniques. F
370. Teacher stimulates students; intellectual curiosity. F
371. Teacher encourages examination of different opinions. F
372. Teacher encourages students to work willingly in class. F
373. Teacher encourages students to participate actively. F
374. Teacher encourages interpretation of subject matter. F
375. Teacher encourages factual answers. F
376. Teacher encourages formulation of generalizations. F
377. Teacher encourages students to relate main points to broader aims of lesson. F
378. Teacher encourages each student to search for better goals. F
379. Teacher encourages students to be unhurried and thorough.
380. Teacher encourages students to do their best. F
381. Teacher encourages students to share leadership responsibility. F
382. Teacher encourages students to accept leadership responsibilities. F

383. Teacher encourages students to be responible for their own judgments. F
384. Teacher encourages students to take responsibility for reasoning. F
385. Teacher encourages students to initiate their own learning activities. F
386. Teacher encourages students to solve their own problems. F
387. Teacher encourages students to work problems independently. F
388. Teacher encourages students to self-directed investigation. F
389. Teacher gets students to do their best without being told. F
390. Teacher encourages students to learn. R
391. Teacher directs students' interests toward meaningful learning. R
392. Teacher provides challenge. F
393. Teacher encourages students' attempts to be creative. F
394. Teacher encourages objective reasoning. F
395. Teacher encourages convergent thinking. F
396. Teacher encourages conditional inference. F
397. Teacher encourages divergent thinking. F
398. Teacher encourages student independent thought. F
399. Teacher discourages student independent thought. F
400. Teacher provokes student thought. B
401. Teacher provokes students' reasoning. B
402. Teacher encourages inductive thinking. F
403. Teacher encourages deductive thinking. F
404. Teacher encourages critical thinking. F
405. Teacher encourages problem solving. F
406. Teacher encourages students' use of problem-solving techniques. R
407. Teacher encourages development of inquiry skills. F
408. Teacher stimulates factual learning. F
409. Teacher stimulates conceptual learning. mrnts. F
410. Teacher encourages students' formulation of value judge/ F
411. Teacher encourages students to use several sources of information. F
412. Teacher anticipates individual needs. R
413. Teacher provides for individual differences among students. R
414. Teacher varies teaching according to students, rate of learning. R
415. Teacher capitalizes on students' interests. R
416. Teacher works closely with parents in helping students. R
417. Teacher capitilizes on opportunities for insight about students. R
419. Teacher gives remedial work to slow learners. F
420. Teacher has help sessions for slow learners. F
421. Teacher provides references for further study of the topic. B
422. Teacher helps students to use subject matter. F
423. Teacher encourages students to use subject matter learned. -F
424. Teacher helps students study topic and related issues in greater depth. B
424. Teacher helps students study topic and related issues in greater depth. B

425.	Teacher provides references to topics related to lesson.	B
426.	Teacher encourages students to suggest supplementary materials.	B
427.	Teacher suggests means for developing projects.	B
428.	Teacher helps students discover new areas for study.	B
429.	Teacher suggests supplementary aids to learning.	B
430.	Teacher suggests possible study methods.	B
431.	Teacher insists on specific study methods.	F
432.	Teacher bases patterns of individual instruction on diagnosis of students' strengths.	R
433.	Teacher bases patterns of individual instruction on diagnosis of students' deficiencies.	R
434.	Teacher develops patterns of individual instruction according to students' level of achievement.	B
435.	Teacher selects procedures which enhance the content for each student.	B
436.	Teacher selects materials which enhance the content for each student.	B
437.	Teacher ascertains that students understand purpose of individual assignment.	B
438.	Teacher provides opportunity for individual assistance.	B
439.	Teacher develops realistic standards of achievement with each student.	B
440.	Teacher evaluates progress with individual students at appropriate intervals.	B
441.	Teacher relates individual study and assignment to class activities.	B
442.	Teacher criticizes students authority.	F
443.	Teacher justifies students authority.	F
444.	Teacher justifies own authority.	F
445.	Teacher includes students and self ("we") as source of authority.	F
446.	Teacher refers to self ("I") as source of authority.	F
447.	Teacher refers to external authority.	F
448.	Teacher makes self-supporting remarks to justify self.	F
449.	Teacher uses influence and encouragement instead of authority.	F
450.	Teacher encourages students to challenge authority.	F
451.	Teacher glares at students.	F
452.	Teacher frowns.	F
453.	Teacher yells at students.	F
454.	Teacher scolds students.	F
455.	Teacher is cross, curt.	F
456.	Teacher waves at students to sit down.	F
457.	Teacher shakes head in approval.	F
458.	Teacher shakes head in disapproval.	F
459.	Teacher "lays down the law."	F
460.	Teacher orders immediate obedience.	F
461.	Teacher stamps foot to hurry students along.	F
462.	Teacher permits students to laugh at mistakes of others.	F
463.	Teacher permits unsolicited student behavior.	F
464.	Teacher tolerates whispering.	F
465.	Teacher tolerates scuffling or fighting in class.	F
466.	Teacher allows unauthorized students activities.	F
467.	Teacher tolerates confusion during lesson.	F
468.	Teacher is extremely permissive.	F

469. Teacher admonishes students for reliance on unnecessary help. F
470. Teacher threatens students. F
471. Teacher reproves or deprecates misbehaving students. F
472. Teacher admonishes students for borrowing without permission. F
473. Teacher admonishes students for using time unwisely. F
474. Teacher admonishes students for inefficient work during teacher absence. F
475. Teacher admonishes students for being untidy. F
476. Teacher admonishes students for messy written work. F
477. Teacher warns students. F
478. Teacher's control encourages students self-respect. R
479. Teacher shames students. F
480. Teacher uses punishment to focus class attention. F
481. Teacher uses praise to focus class attention. F
482. Teacher urges students to practice self-control. F
483. Teacher questions students who disturb class. F
484. Teacher quiets students in a pleasant, but firm way. B
485. Teacher quickly quiets students distraction. F
486. Teacher disciplines in quiet, dignified, positive manner. R
487. Teacher constructively controls student behavior. R
488. Teacher controls student behavior through negative means. F
489. Teacher controls difficult situations. R
490. Teacher adapts monitoring to students individual differences. R
491. Teacher considers students characteristics in monitoring. R
492. Teacher varies monitoring methods according to activities. F
493. Teacher relocates students who disturb class. F
494. Teacher prevents potential class difficulties. F
495. Teacher attempts to resolve class difficulties. F
496. Teacher foresees potential difficulties. F
497. Teacher uses direct command. F
498. Teacher uses critical, threatening, warning sentences. F
499. Teacher smiles sarcastically or critically. F
500. Teacher ridicules without humor. F
501. Teacher makes sarcastic remarks about students. F
502. Teacher uses sarcasm. F
503. Teacher uses threats. F
504. Teacher uses commands as means of discipline. F
505. Teacher uses direct means of discipline. F
506. Teacher uses indirect discipline. F
507. Teacher uses available services to deal with student problems. B
508. Teacher punishes by sending students to principal. F
509. Teacher punishes by sending students out of class. F
510. Teacher uses physical punishment on student. F
511. Teacher deprives students of rights and privileges. F
512. Teacher relates rules to expediency. F
513. Teacher relates rules to analytic relationships. F
514. Teacher expects immediate student compliance with directions. F
515. Teacher enforces rules necessary for goal achievement. B
516. Teacher maintains reasonable standards of conduct. R
517. Teacher uses rules to attain goals. B
518. Teacher uses controls to attain goals. B
519. Teacher expects students to comply with directions. F
520. Teacher expects students to comply with commands. F
521. Teacher sets up fair rules and regulations. F
522. Teacher insures student understanding. B

523.	Teacher presents content effectively.	R
524.	Teacher presents subject matter in a suitable way.	R
525.	Teacher "romances" subject matter.	F
526.	Teacher covers lesson content thoroughly.	B
527.	Teacher covers topic thoroughly.	B
528.	Teacher carries out plans effectively.	B
529.	Teacher emphasizes key concepts in learning.	B
530.	Teacher emphasizes active learning.	F
531.	Teacher emphasizes passive learning.	F
532.	Teacher emphasizes conceptual learning.	F
533.	Teacher emphasizes factual learning.	F
534.	Teacher diagnoses before initiating study of new topics.	B
535.	Teacher indicates barriers to attaining learning aims.	F
536.	Teacher indicates barriers to reaching class goals.	F
537.	Teacher points to learning problem-community environment relationship.	F
538.	Teacher points to learning problem-home environment relationship.	F
539.	Teacher points to learning problem-school conditions relationship.	F
540.	Teacher points to learning problem class-conditions relationship.	F
541.	Teacher shows concern for students' development of attitudes.	R
542.	Teacher ascertains students understanding of lesson goals.	B
543.	Teacher gives factual information about course-related subjects.	F
544.	Teacher lessons are commensurate with stated objectives.	R
545.	Teacher's method of instruction is appropriate to goals.	R
546.	Teacher's method of instruction is appropriate for the content.	R
547.	Teacher varies techniques used in the class.	B
548.	Teacher varies mode of instruction through class period.	F
549.	Teacher asks students to select among several teaching plans.	F
550.	Teacher builds upon key concepts of previous lesson.	B
551.	Teacher outlines main points on blackboard.	F
552.	Teacher outlines topic and subtopics orally.	F
553.	Teacher structures lesson on logical principles.	F
554.	Teacher lists sequential topics at beginning of lesson.	F
555.	Teacher uses sequential presentation.	B
556.	Teacher uses sequence to build concepts progressively.	F
557.	Teacher enumerates sequential topics.	F
558.	Teacher develops main topic by sequence of subtopics.	F
559.	Teacher clarifies relationship between main topic and subtopics.	B
560.	Shift to new subtopic enhances cognition of main topic.	F
561.	Teacher repeats sentences for clarification and emphasis.	F
562.	Teacher uses non-verbal stimuli.	F
563.	Teacher uses verbal stimuli.	F
564.	Teacher uses conditional inference.	F
565.	Teacher uses redundancy to emphasize points.	F
566.	Teacher is redundant in different ways.	F
567.	Teacher's ideas are transmitted bimodally.	F
568.	Teacher emphasizes main points.	B
569.	Teacher repeats main points in lesson.	F

570.	Teacher emphasizes important words and sentences.	F
571.	Teacher "cues" the most important information.	F
572.	Teacher restates main points in lesson.	F
573.	Teacher stresses main points in different ways.	F
574.	Teacher identifies main points in different ways.	B
575.	Teacher reviews main points at spaced intervals.	F
576.	Teacher demonstrates his points.	F
577.	Teacher generalizes when suitable.	R
578.	Teacher relates concepts to contemporary referents.	B
579.	Teacher relates topic to historical events.	F
580.	Teacher points out implications of ideas.	F
581.	Teacher interprets implications of topics under study.	B
582.	Teacher states facts or generalizations.	F
583.	Teacher uses single enumerative device.	F
584.	Teacher writes difficult words on blackboard.	F
585.	Teacher writes new words on blackboard.	F
586.	Teacher outlines for clarity and perspective.	B
587.	Teacher uses jokes, humor, and tricks to emphasize important points.	F
588.	Teacher uses jokes, descriptions and puns effectively.	F
589.	Teacher uses irrelevant jokes.	F
590.	Teacher uses relevant jokes.	F
591.	Teacher establishes learning set for listening behavior.	F
592.	Teacher asks rhetorical questions.	F
593.	Teacher pauses before sentence for emphasis.	F
594.	Teacher varies intonation pattern while lecturing.	F
595.	Teacher's lecture style contributes to student comprehension.	R
596.	Teacher refers to self during lecture.	F
597.	Teacher quotes material while lecturing.	F
598.	Teacher enumerates main points for emphasis.	B
599.	Teacher relates lecture to previous learning.	R
600.	Teacher employs analogy in lecture.	F
601.	Teacher explains key terms used in lecture.	F
602.	Teacher begins lecture with organizing review.	B
603.	Teacher elaborates ideas presented in lecture.	B
604.	Teacher cites sources of content covered in lecture.	F
605.	Teacher ascertains student's understanding of learning goals in lecture.	R
606.	Lecture digresses in information flow.	F
607.	Teacher digresses from originally announced lecture topic.	F
608.	Teacher fixes eyes on one point while lecturing.	F
609.	Teacher reads directly from his notes.	F
610.	Teacher looks at his notes while lecturing.	F
611.	Teacher lectures slowly enough for note-taking.	B
612.	Teacher identifies important points in lecture.	B
613.	Teacher restricts lecture to content to be covered in test.	F
614.	Teacher lectures effectively.	R
615.	Teacher smiles or laughs during lecture.	F
616.	Teacher restates main points in lecture.	B
617.	Teacher distinguishes between main points and supporting statements.	B
618.	Teacher repeats key point in lecture.	F
619.	Teacher presents unusual facts in lecture.	F
620.	Teacher lectures in warm voice.	R
621.	Teacher gives introductory preview of major sections of lecture.	R

622. Teacher makes use of audio-visual aids while lecturing. B
623. Teacher instructs students to take notes or important points in lecture. F
624. Teacher encourages students to ask questions during lecture. F
625. Teacher only lectures when it is effective means to reach instructional goal. R
626. Teacher provides students with outline of main points to be covered. R
627. Teacher provides students with list of questions to be answered. R
628. Teacher explains role of students. R
629. Teacher explains students' responsibility for material. R
630. Teacher uses vocabulary that is clearly understood by students. R
631. Teacher illustrates main ideas by use of examples. B
632. Teacher illustrates main ideas by use of analogies. B
633. Teacher illustrates main ideas by use of non-verbal symbols. B
634. Teacher illustrates main ideas by use of audio-visual material. B
635. Teacher paces lecture on the basis of attending behavior cues. R
636. Teacher paces lecture on the basis of student response to teacher questions. R
637. Teacher paces lecture on the basis of student initiated questions. R
638. Teacher refocuses student attention by highlighting main points. B
639. Teacher refocuses student attention by restating main points. B
640. Teacher maintains student attention by moving about. B
641. Teacher maintains student attention by gesturing. B
642. Teacher maintains student attention by use of silence. B
643. Teacher maintains student attention by changing tone of voice. B
644. Teacher maintains student attention by changing volume of voice. B
645. Teacher maintains student attention by establishing eye-contact. B
646. Teacher adjusts physical surroundings to facilitate lecture presentation. B
647. Teacher asks questions to evaluate students' understanding. B
648. Teacher asks probing questions. B
649. Teacher asks open-end questions. B
650. Teacher questions interest students. B
651. Teacher asks direct questions of students. F
652. Teacher asks trivial questions. F
653. Teacher's questions stimulate students' interest. R
654. Teacher asks question on material to be included in exam. F
655. Teacher asks question about content--what, where, when. F
656. Teacher asks questions which help students recall subject matter. B
657. Teacher poses thesis for students to discuss. F
658. Teacher poses higher-order questions. F
659. Teacher asks question about procedure. F
660. Teacher asks question about process. F

661.	Teacher asks thought-provoking questions.	B
662.	Teacher asks question requiring factual answer.	F
663.	Teacher designates respondent, then asks question.	F
664.	Teacher asks question, then designates respondent.	F
665.	Teacher does not designate respondent for question.	F
666.	Teacher's question requires students to make judgements.	F
667.	Teacher's question requires students to verbalize their own judgements.	F
668.	Teacher asks questions which are to be answered by informal discussion.	F
669.	Teacher's question requires a substantive response.	F
670.	Teacher's question requires explanatory answers.	F
671.	Teacher's question requires thought beyond one structured step.	F
672.	Teacher's question requires use of problem-solving techniques.	F
673.	Teacher's question requires reasoning.	F
674.	Teacher encourages non-responding students to participate.	F
675.	Teacher is aware of student response frequency.	R
676.	Teacher changes students' response modes.	F
677.	Teacher elicits response limited to a few words.	F
678.	Teacher elicits expected response from student.	F
679.	Teacher directly elicits oral response.	F
680.	Teacher fails to recognize significant student contribution.	F
681.	Teacher recognizes student's contribution.	F
682.	Teacher uses student ideas.	F
683.	Teacher capitalizes on promising responses of students.	R
684.	Teacher justifies student argument or judgement.	F
685.	Teacher expands students ideas or contributions.	B
686.	Teacher interrelates various student responses.	B
687.	Teacher indicates several answers are appropriate.	F
688.	Teacher questions correctness of student response.	F
689.	Teacher asks for additional information.	F
690.	Teacher helps student add new information to response.	B
691.	Teacher helps student improve substantive response.	B
692.	Teacher clarifies student answer.	F
693.	Teacher repeats student answer.	F
694.	Teacher encourages students to ask questions.	F
695.	Teacher asks for student questions.	F
696.	Teacher introduces most questions.	F
697.	Teacher allows student to ask question of class.	F
698.	Teacher seems confused by student comments or questions.	F
699.	Teacher seems surprised by student comment or questions.	F
700.	Teacher anticipates wide variety of student questions.	R
701.	Teacher answers student question with own opinion.	F
702.	Teacher answers student question with factual information.	F
703.	Teacher gives complete, satisfying answers.	R
704.	Teacher answers to students' questions are incomplete.	B
705.	Teacher's anwers to students' questions are inaccurate.	B
706.	Teacher accepts value-laden statements without evidence.	F
707.	Teacher answers own question.	F
708.	Teacher justifies own argument or judgement.	F
709.	Teacher substantiates students' arguments or judgements.	B
710.	Teacher substantiates own argument or judgement.	F
711.	Teacher is resourceful in answering students' questions.	F
712.	Teacher indicates that student question is unreasonable.	F

713.	Teacher redirects questions in a positive manner.	R
714.	Teacher postpones student question for explicit reason.	F
715.	Teacher postpones student question without giving a reason.	F
716.	Teacher makes effective assignments.	R
717.	Teacher gives challenging assignments.	R
718.	Teacher makes assignments of appropriate difficulty.	R
719.	Teacher gives assignment by suggesting activity.	B
720.	Teacher's assignment provide little or no motivation.	R
721.	Teacher makes assignments at beginning of unit.	F
722.	Teacher assigns a specific task to be done in class.	F
723.	Teacher assigns a specific task as homework.	B
724.	Teacher gives assignment by requiring specific activity.	B
725.	Teacher spaces assignments evenly.	R
726.	Teacher considers students' differences in giving assignments.	F
727.	Teacher provides review of assignments.	B
728.	Teacher makes individual assignments.	B
729.	Teacher insures that length of assignment is appropriate.	R
730.	Teacher implements classwork through stimulating outside assignments.	R
731.	Teacher communicates task clearly by explaining purposes.	B
732.	Teacher communicates task clearly by explaining procedures.	B
733.	Teacher communicates task clearly by explaining relationship to aims.	B
734.	Teacher communicates task clearly by explaining basis of evaluation.	B
735.	Teacher communicates task clearly by explaining due date.	B
736.	Teacher makes assignment at appropriate time during lesson.	R
737.	Teacher determines length of time for making assignment by student verbal and non-verbal cues.	R
738.	Teacher makes arrangements for gifted students.	B
739.	Teacher makes arrangements for slow learners.	B
740.	Teacher makes arrangements for absent students.	B
741.	Teacher handles students' individual problems without disturbing other students.	R
742.	Teacher establishes working environment for assigned task.	R
743.	Teacher takes steps to re-establish a good working environment.	B
744.	Teacher periodically checks to insure that work is proceeding well.	B
745.	Teacher alerts all students to problems which develop and require clarification.	B
746.	Teacher makes arrangements for students who complete task early.	R
747.	Teacher restates substance of assignment in relation to goals of course.	F
748.	Teacher restates goals of assignment in relation to goals of course.	F
749.	Teacher has student restate goals of assignment in relation to goals of course.	F
750.	Teacher has student restate substance of assignment in relation to goals of course.	F
751.	Teacher provides students with feedback on the accuracy of their responses.	F
752.	Teacher provides students with correct responses.	F

753.	Teacher uses class time efficiently by giving answers or explaining himself.	F
754.	Teacher uses student explanation of correct answers.	F
755.	Teacher assigns additional work to provide clarification.	F
756.	Teacher assigns additional work to provide extra practice.	F
757.	Teacher keeps a record of each student's performance on the assignment.	F
758.	Teacher uses all aids available in classroom.	R
759.	Teacher uses other sources besides the text.	F
760.	Teacher uses a variety of textbooks.	B
761.	Teacher uses a variety of instructional materials.	B
762.	Teacher uses suitable reference materials.	B
763.	Teacher uses audio-visual aids when they present content most effectively.	R
764.	Teacher uses audio-visual aids appropriate to students' ability.	R
765.	Teacher uses audio-visual aids appropriate to students' interests.	R
766.	Teacher explores all sources in order to find helpful learning aids.	R
767.	Teacher uses materials effectively.	R
768.	Teacher's use of audio-visual aids is related to lesson aims.	R
769.	Teacher develops original materials to aid instruction.	B
770.	Teacher develops original audio-visual aids to aid instruction.	B
771.	Teacher uses community resources in preparing lesson.	B
772.	Teacher uses outside experts to achieve class goals.	B
773.	Teacher explores school and community for helpful experts.	B
774.	Teacher shows students how to find extra learning materials.	B
775.	Teacher suggests supplementary aids to learning.	B
776.	Teacher insures availability of suitable reference materials.	R
777.	Teacher uses timely displays.	B
778.	Teacher keeps room displays current.	R
779.	Teacher uses unusual teaching aids.	B
780.	Teacher relates bulletin boards and displays to current lessons.	R
781.	Teacher demonstrates training aids.	B
782.	Teacher draws diagrams on board.	F
783.	Teacher uses diagrams on board.	F
784.	Teacher rearranges physical environment to facilitate activity.	R
785.	Teacher establishes desirable physical class environment.	R
786.	Teacher makes best use of physical surroundings.	R
787.	Teacher familiarizes himself with audio-visual materials in advance.	R
788.	Teacher uses audio-visual aids to attain instructional goals.	R
789.	Teacher uses audio-visual materials to complement instruction.	F
790.	Teacher uses audio-visual materials to clarify instruction.	F
791.	Teacher uses audio-visual materials to add perspective to instruction.	F
792.	Teacher prepares class by indicating focus for viewing or listening.	R
793.	Teacher is prepared to use alternative procedures if equipment fails.	F

794.	Teacher insures that operation of audio-visual equipment does not detract from lesson.	R
795.	Teacher states principle before giving example.	F
796.	Teacher gives examples before stating principle.	F
797.	Teacher elicits student generalizations by giving examples.	B
798.	Teacher varies examples for clarification.	F
799.	Teacher gives positive instance of concept.	F
800.	Teacher gives negative instance of concept.	F
801.	Teacher presents contrasting pairs in teaching concepts.	F
802.	Teacher relates rules to convention.	F
803.	Teacher uses doubt in presenting concepts.	B
804.	Teacher uses contradiction in presenting concepts.	B
805.	Teacher uses verbal negative reinforcement.	F
806.	Teacher uses positive oral, verbal reinforcement.	F
807.	Teacher uses postural negative reinforcement.	F
808.	Teacher uses postural positive reinforcement.	F
809.	Teacher uses written positive verbal reinforcement.	F
810.	Teacher says, "yes," "right,""good answer."	F
811.	Teacher says, "correct" or "that's right."	F
812.	Teacher says, "that's not the answer I want."	F
813.	Teacher says, "wrong," "incorrect."	F
814.	Teacher says, "no" or "bad."	F
815.	Teacher says, "all right" or"OK."	F
816.	Teacher shakes head, scowls or frowns.	F
817.	Teacher specifies correct response narrowly.	F
818.	Teacher indicates that student answer is correct.	F
819.	Teacher indicates correctness of students' answer.	F
820.	Teacher accepts student response enthusiastically.	F
821.	Teacher rates student response positively.	F
822.	Teacher explicitly rates student response negatively.	F
823.	Teacher disagrees with student response.	F
824.	Teacher qualifies student response.	F
825.	Teacher implies positive evaluation by repeating student response.	F
826.	Teacher repeats answer (idea) in almost same words.	F
827.	Teacher rephrases or restates student response.	F
828.	Teacher restates or rephrases a statement.	F
829.	Teacher helps student rephrase or restate response.	F
830.	Teacher helps student to be more specific.	F
831.	Teacher adds new information to student response.	F
832.	Teacher uses student response to share further responses.	F
833.	Teacher gives instruction to students.	F
834.	Teacher gives clear, specific directions.	B
835.	Teacher is clear and thorough in giving directions.	R
836.	Teacher volunteers administrative help to students.	F
837.	Teacher's statement is administrative.	F
838.	Teacher uses a flexible procedure.	F
839.	Teacher's procedure is relevant to stated goals.	R
840.	Teacher is systematic about class procedure.	R
841.	Teacher uses a variety of procedures.	R
842.	Teacher clarifies goals of procedures.	R
843.	Teacher provides model of task or procedure.	F
844.	Teacher wastes time because of poor procedure.	F
845.	Teacher does not use class time for trivial material.	R
846.	Teacher stays with subject, doesn't wander aimlessly.	R
847.	Teacher organizes activities to minimize confusion.	F
848.	Teacher uses routine procedures in conducting lesson.	F

849. Teacher stresses and reviews major points of lesson. R
850. Teacher provides a carefully structured review. R
851. Teacher conducts a thorough review. R
852. Teacher repeats key points from earlier lesson. F
853. Teacher provides review of earlier content. R
854. Teacher ends lesson when students have achieved instructional goals. R
855. Teacher provides task closure. R
856. Teacher brings lesson successfully to a climax. R
857. Teacher ends lesson in strong manner. R
858. Teacher's ending of lesson brings complete closure to topic. R
859. Teacher stimulates students thinking about next topic. F
860. Teacher insures that students have understood purposes of unit. R
861. Teacher insures that students have understood relation of unit to goals of course.
862. Teacher provides for synthesis of important sections of unit. R
863. Teacher provides for synthesis of work in current unit with previous units. R
864. Teacher identifies uncertainties about significant aspects of unit. R
865. Teacher provides clarification for class and for individual students. R
866. Teacher suggests materials--activities for students interested in topic. R
867. Teacher suggests additional activities for students interested in topic. F
868. Teacher demonstrates awareness--approval of students accomplishments during unit. R
869. Teacher provides smooth transition to the next unit. R
870. Teacher introduces unit effectively. R
871. Teacher's introductory remarks contain key terms of criterion questions. F
872. Teacher introduces idea by presenting facts. F
873. Teacher begins lesson with anticipatory questions. B
874. Teacher relates unit to other student experiences. B
875. Teacher establishes pre-instructional set. R
876. Teacher's lesson introduction excites interest of students. R
877. Teacher reviews necessary writing skills prior to use in lesson. R
878. Teacher reviews necessary observation skills prior to use in lesson. R
879. Teacher reviews necessary speaking skills prior to use in lesson. R
880. Teacher organizes lesson so that other activities don't detract from introduction. R
881. Teacher arouses student interest by relating unit to other experiences. R
882. Teacher arouses student interest by showing personal enthusiasm. R
883. Teacher arouses student interest by providing interesting activities. R
884. Teacher ascertains that purposes of unit are clear to students. R
885. Teacher explains to students their roles in unit. B
886. Teacher develops with students their roles in unit. B

887. Teacher explains to students their responsibilities to material. B
888. Teacher develops with students their responsibilities to material. B
889. Teacher relates unit to previous units and overall goals for year. R
890. Teacher utilizes instructional materials which enhance introduction. R
891. Teacher discusses ways and means for evaluating unit. R
892. Teacher paces lesson according to student achievement. R
893. Teacher paces lesson according to the content. R
894. Teacher paces the lesson in terms of the mode of instruction to be used. R
895. Teacher paces lesson by adjusting number of activities for the class period. R
896. Teacher's presentation has a very rapid and stimulating pace. R
897. Teacher moves smoothly from one part of lesson to another. R
898. Teacher presents lesson as a related whole. R
899. Teacher insures that parts of the lesson are interrelated. R
900. Teacher relates chance events to planned events. B
901. Teacher relates lesson to prior lessons. R
902. Teacher prepares students for next day's goal. R
903. Teacher relates students' remarks to other activities. R
904. Teacher relates subject to previous learning. R
905. Teacher attempts to induce transfer from lesson to other activities. B
906. Teacher helps students develop knowledge of subject interrelationships. R
907. Teacher uses discovery learning. F
908. Teacher uses problem-solving techniques. F
909. Teacher emphasizes inductive thinking in lesson presentation. F
910. Teacher helps students apply subject matter to problem-solving. R
911. Teacher structures problem to facilitate problem-solving. R
912. Teacher applies problem before stating it abstractly. F
913. Teacher insures students comprehension of problem before application. F
914. Teacher relates problem to other fields of knowledge. R
915. Teacher manipulates environment to create problem to be solved. R
916. Teacher uses inductive teaching effectively. R
917. Teacher moves discussion sequentially toward problem solution. R
918. Teacher clearly identifies problem with students. R
919. Teacher identifies problem-solving skills, concepts, and principles. B
920. Teacher helps students identify problem-solving skills, concepts and principles. B
921. Teacher provides materials for assembling evidence relevant to problem. B
922. Teacher suggests resources for assembling evidence relevant to problem. B
923. Teacher directs student efforts to sift, organize and analyze evidence. B
924. Teacher elicits tentative hypotheses for the problem. B
925. Teacher directs speculation about effectiveness of student hypotheses. B

926. Teacher channels students efforts in deciding on best solution to the problem. B
927. Teacher develops with students possible means of implementing solution. B
928. Teacher directs students in evaluating problem-solving experience. B
929. Teacher engages in informal discussion with students. F
930. Teacher leads discussions effectively. R
931. Teacher uses informal discussion to answer questions. F
932. Teacher's goals are apparent to students in discussion situation. R
933. Teacher stimulates students to discuss topic by asking interesting questions. B
934. Teacher alone indicates discussion topics. F
935. Teacher elicits suggestions from class for discussion topics. B
936. Teacher directs discussion by selecting questions to be asked. F
937. Teacher defines, states, and solves problem for students. F
938. Teacher carefully defines problem area for discussion. R
939. Teacher includes all students in discussion. B
940. Teacher gives every student an equal chance to be heard. R
941. Teacher allows discussion to become confused by uncontrolled student participation. F
942. Teacher strives for 100 percent student participation in discussion. R
943. Teacher emphasizes inductive thinking in discussion. F
944. Teacher emphasizes deductive thinking in discussion. F
945. Teacher allows discussion to drift from subject. F
946. Teacher interrupts relevant student discussion. F
947. Teacher's examples elicit new directions of student discussion. F
948. Teacher limits the parameters of the discussion. R
949. Teacher welcomes differences in viewpoint. F
950. Teacher organizes conceptual ideas used by students. B
951. Teacher organizes structural ideas used by students. B
952. Teacher helps students state opinions clearly. B
953. Teacher provides for review of class discussion. B
954. Teacher synthesizes main points of class discussion. B
955. Teacher insures that students are prepared to discuss the topic. R
956. Teacher creates appropriate set to facilitate instruction. F
957. Teacher focuses the discussion to minimize irrelevant digressions. R
958. Teacher asks provocative questions to sustain or redirect discussion. B
959. Teacher gives new examples to sustain or redirect discussion. B
960. Teacher clarifies ambiguous student statements. B
961. Teacher asks students to clarify own statements. B
962. Teacher attempts to bring non-participating students into discussion. F
963. Teacher attempts to prevent monopoly of discussion by a few students. F
964. Teacher synthesizes main points of discussion. R
965. Teacher encourages students to synthesize main points of discussion. B

966. Teacher provides references for further study of topic and related issues. R
967. Teacher incorporates small group work into total unit. R
968. Teacher uses small group instruction frequently. R
969. Teacher directs small group work effectively. R
970. Teacher trains small groups to focus on problem. R
971. Teacher trains small groups to pace activities. R
972. Teacher structures small group procedures. R
973. Teacher restructures task, assignment, or groups. B
974. Teacher anticipates reactions of students in social situation. R
975. Teacher improves pupil-to-pupil communication. R
976. Teacher assigns leadership responsibilities according to students' abilities. R
977. Teacher rotates leadership impartially. B
978. Teacher insures that group size is sutiable to content, method, material. R
979. Teacher helps students to organize themselves. F
980. Teacher helps establish good group dynamics. R
981. Teacher insures that students are prepared to discuss topic. R
982. Teacher utilizes small group work to achieve expression of individual opinions. B
983. Teacher utilizes small group work to facilitate project work. B
984. Teacher utilizes small group work to solve problems. B
985. Teacher utilizes small group work to maximize student interaction. B
986. Teacher develops with students a rationale for use of small groups. R
987. Teacher arranges physical environment to facilitate small group work. R
988. Teacher provides instructional materials for students use. R
989. Teacher explains role and responsibilities of each student in group. R
990. Teacher checks on progress of groups to insure that work is moving well. B
991. Teacher directs progress of groups by establishing good group dynamics. B
992. Teacher incorporates results of small group work into other learning activities. R
993. Teacher gradually increases students' responsibilities in topic selection. R
994. Teacher gradually increases students' responsibility in organization. R
995. Teacher gradually increases students' responsibility in planning. R
996. Teacher gradually increases students' responsibility in evaluation. R
997. Teacher screens topics to insure that they are relevant and significant. F
998. Teacher clarifies for each student the depth and breadth of his report. F
999. Teacher considers student interest and ability in assigning topics. F
1000. Teacher assigns only topics for which adequate information is available. F
1001. Teacher clarifies the depth and breadth of each student's report. F

1002.	Teacher encourages students to use audio-visual aids in their presentation.	F
1003.	Teacher instructs students in relevant elementary public speaking techniques.	F
1004.	Teacher establishes evaluative criteria.	B
1005.	Teacher communicates evaluative criteria to students.	B
1006.	Teacher establishes procedures and communicates them to students.	F
1007.	Teacher plans alternative activities for students unable to give oral reports.	F
1008.	Teacher informs students of their responsibilities during each report.	F
1009.	Teacher introduces topic.	F
1010	Teacher relates topic to unit as a whole.	F
1011.	Teacher has audio-visual aids available for student use.	F
1012.	Teacher maintains standards of discipline and respect toward student reporter.	B
1013.	Teacher allows time for discussion and questions after each report.	F
1014.	Teacher uses previously specified evaluative criteria and procedures.	F
1015.	Teacher evaluates context of report.	F
1016.	Teacher evaluates presentation of report.	F
1017.	Teacher develops with students a rationale for using panel discussions.	F
1018.	Teacher considers panel composition in relation to anticipated goals.	F
1019.	Teacher selects topics which can best be discussed by several students.	F
1020.	Teacher provides for students' interests in assigning discussion topics.	F
1021.	Teacher insures that panelists are prepared to present and discuss topics.	F
1022.	Teacher explains panelists' responsibilities for research and reporting.	F
1023.	Teacher establishes a definite evaluation procedure.	F
1024.	Teacher arranges physical environment to facilitate panel discussion.	F
1025.	Teacher explains class responsibility during panel discussion.	F
1026.	Teacher maintains standards of discipline and respect toward panelists.	R
1027.	Teacher evaluates panel discussion according to prearranged procedures.	F
1028.	Teacher controls student participation through recitation.	F
1029.	Teacher is consistent in controlling student participation.	R
1030.	Teacher allows students to dominate class.	F
1031.	Most interaction is between students.	F
1032.	Most interaction is between teacher and students.	F
1033.	Teacher participates in class activities without dominating them.	B
1034.	Teacher participates easily in class activities.	B
1035.	Teacher guides students without being mandatory.	R
1036.	Teacher assumes responsibility in decision-making.	F
1037.	Teacher does not over-direct or over-tell.	R
1038.	Teacher directs rather than participates.	F
1039.	Teacher includes all students in class plans and decisions.	R

1040.	Teacher challenges irresponsible students' contribution.	F
1041.	Teacher interrupts irresponsible students' contribution.	F
1042.	Teacher permits student requested procedure or action.	F
1043.	Teacher leads students to self-direction and discipline.	R
1044.	Teacher's lack of participation hinders students' productivity.	F
1045.	Teacher exhorts students toward course of action.	F
1046.	Teacher freely exchanges ideas with students.	F
1047.	Teacher defends students viewpoint.	F
1048.	Teacher accepts all students; rejects none.	R
1049.	Teacher is impartial in treatment of students.	R
1050.	Teacher easily approaches all students.	R
1051.	Teacher ignores most students.	F
1052.	Teacher ignores some students.	F
1053.	Teacher repeatedly gives student special advantages.	F
1054.	Teacher carries on private conversations excluding majority of students.	F
1055.	Teacher attends most to one or few students.	F
1056.	Teacher works with entire class.	F
1057.	Teacher seems self-confident in relations with students.	B
1058.	Teacher treats students as grown-ups.	R
1059.	Teacher speaks to students as equals.	B
1060.	Teacher repeatedly corrects certain students.	F
1061.	Teacher is relaxed and informal in teacher-student relations	F
1062.	Teacher is stiff and formal in teacher-student relations.	F
1063.	Teacher requests student criticism of teaching.	F
1064.	Teacher allows students to criticize him personally.	F
1065.	Teacher allows students to criticize his methods.	F
1066.	Teacher ignores student suggestions about teaching.	F
1067.	Teacher is embarrassed by student criticism.	F
1068.	Teacher is embarrassed by own mistakes.	F
1069.	Teacher's inaccuracies are pointed out by students.	F
1070.	Teacher's inaccuracies are corrected by students.	F
1071.	Teacher's sources are criticized by students.	F
1072.	Teacher avoids student competition during recitation.	F
1073.	Teacher sets up classroom competition which is stimulating, not punitive.	R
1074.	Teacher sets up competitive situations.	F
1075.	Teacher avoids students' defeating one another.	F
1076.	Teacher avoids verbal battles between students.	F
1077.	Teacher encourages verbal disputes between students.	F
1078.	Teacher is impatient with interruptions or digression.	F
1079.	Teacher minimizes irrelevancies.	B
1080.	Teacher welcomes digression.	F
1081.	Teacher does not permit digression.	F
1082.	Teacher handles well random remarks from students.	R
1083.	Teacher postpones student question without stated reason.	F
1084.	Teacher shows disapproval of student contribution.	F
1085.	Teacher interrupts while student is speaking.	F
1086.	Teacher allows voluntary student contributions.	F
1087.	Teacher contradicts student's contribution.	F
1088.	Teacher discourages student contribution.	F
1089.	Teacher encourages and asks for student opinion.	F
1090.	Teacher-student communication is clear throughout lesson.	R
1091.	Teacher supports student expression of unusual interests.	F
1092.	Teacher respects student opinion.	B

1093.	Teacher is considerate of students' limitations.	R
1094.	Teacher is tolerant of students' errors.	R
1095.	Teacher accepts student ideas.	F
1096.	Teacher tries to see students points of view.	B
1097.	Teacher rejects student idea.	F
1098.	Teacher disengages from student without bluntness.	F
1099.	Teacher capitalizes on promising responses of students.	B
1100.	Teacher expresses approval of student initiated behavior.	F
1101.	Teacher shows sympathy with students' viewpoints.	B
1102.	Teacher indicates reservation to student statement.	F
1103.	Teacher communicates value of students' contribution.	F
1104.	Teacher makes neutral comments.	F
1105.	Teacher makes learner-supportive statement.	F
1106.	Teacher praises work well done.	F
1107.	Teacher commends student effort.	F
1108.	Teacher praises and encourages students as a group.	F
1109.	Teacher praises and encourages individual student.	F
1110.	Teacher attempts to reassure student.	F
1111.	Teacher is courteous with students.	R
1112.	Teacher expresses suspicions of student motives.	F
1113.	Teacher depreciates students' efforts.	F
1114.	Teacher laughs at students or at class.	F
1115.	Teacher compliments deserving student.	F
1116.	Teacher compliments pupils.	F
1117.	Teacher thanks student.	F
1118.	Teacher gives help willingly.	B
1119.	Teacher shows interest in the personal experiences of students.	F
1120.	Teacher shows interest in students' personal problems.	F
1121.	Teacher cares for students' individual problems without disturbing others.	B
1122.	Teacher is sympathetic to student failure.	B
1123.	Teacher helps students with personal problems.	F
1124.	Teacher asks about students' personal experiences.	F
1125.	Teacher is passive in response to students.	F
1126.	Teacher is very sincere when talking with students.	R
1127.	Teacher demonstrates affection for student.	F
1128.	Teacher shows affection without being demonstrative.	F
1129.	Teacher nurtures students.	B
1130.	Teacher calls student "dear," "honey," etc.	F
1131.	Teacher calls students by name.	F
1132.	Teacher refers to students by nicknames.	F
1133.	Teacher refers to student impersonally, not by name.	F
1134.	Teacher appreciates student humor.	R
1135.	Teacher jokes with class.	F
1136.	Teacher successfully balances humor and seriousness.	R
1137.	Teacher encourages tension-releasing jokes.	F

END

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